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REPORT OF THE ASIA-PACIFIC SEMINAR ON THE INTERNATIONAL COMPARISON PROJECT AND PRICE STATISTICS

Note by the secretariat

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I. ORGANIZATION OF THE SEMINAR

1. The Asia-Pacific Seminar on the International Comparison Project and Price Statistics, organized by the secretariat of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in collaboration with the Government of Japan, was held at Sapporo, Japan, from 16 to 22 October 1984. Financial support and host facilities were generously provided by the Government of Japan.

Attendance

2. The Seminar was attended by 46 participants from 14 members and associate members of ESCAP: Bangladesh, Hong Kong, India, Islamic Republic of Iran, Japan, Malaysia, New Zealand, Pakistan, the Philippines, Republic of Korea, Singapore, Sri Lanka and Thailand. Representatives of the United Nations Statistical Office, the Statistical Institute for Asia and the Pacific (SIAP), the United Nations Conference on Trade and Development (UNCTAD), the World Bank, the Asian Development Bank (ADB) and the Statistical Office of the European Communities (SOEC) also participated.

3. The participants in the Seminar attended the public lectures given by Mr. Peter Hill, of the Organisation for Economic Co-operation and Development (OECD), and Mr. Yoshimasa Kurabayashi, Director of the United Nations Statistical Office. In Mr. Kurabayashi's lecture, entitled "The United Nations International Comparison Project: past, present and future", a summary of the theoretical and methodological development of the Project and some analyses of available data were given. Mr. Hill's lecture entitled "Purchasing power parities and international comparison of real gross domestic product", presented a critical analysis of common methods of comparing the real GDP (gross domestic product) of different countries, and discussed the properties required of methods of comparison.

Opening addresses

4. The Chief of the ESCAP Statistics Division welcomed the dignitaries, participants and resource persons to the Seminar and thanked the Government of Japan in particular, and the Prefectural Government of Hokkaido and the City of Sapporo for their generous support, warm hospitality and fine host facilities. There was a sense of history in the Seminar because it was the first meeting on the International Comparison Project in the ESCAP region with the specific objective of discussing more meaningful methods for comparing the economic and social development of the member countries through the development and use of ICP.

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5. In his inaugural message, read to the Seminar by the Director-General of the Statistics Bureau, His Excellency Mr. Susumu Yamaji, Administrative Vice-Minister, Management and Co-ordination Agency, observed that the International Comparison Project which had been started by the United Nations Statistical Office in collaboration with other organizations and agencies, was an important mechanism for intercountry comparisons. With increasing interdependence among countries, it was essential to promote international co-operation in such useful projects as ICP. The current Seminar organized by ESCAP would no doubt contribute in that regard, since it would not only help in implementing the ICP in the region but would also help in the development of price statistics as well as other essential data series needed for planning and policy purposes.

6. The Honourable Mr. Takahiro Yokomichi, Governor of Hokkaido Prefecture, in welcoming the participants, recalled that Japan had 30 years of association with ESCAP, formerly known as the Economic Commission for Asia and the Far East (ECAFE). He briefly recounted the development efforts covering agriculture, transport, industry and so on in the Hokkaido Prefecture which possessed 22 per cent of the land area of Japan. Comprehensive statistical information was vital for planning such development. The Seminar was thus very opportune in that regard as well as for promoting friendship between Hokkaido and countries attending the meeting.

7. The Mayor of the City of Sapporo, the Honourable Mr. Takeshi Itagaki, also welcomed the participants and stated that the city was greatly honoured to have been selected as the venue for the Seminar. Such an international event would strengthen friendly relations, promote co-operation and contribute to economic and social development in the region.

8. In his message, the Executive Secretary of ESCAP expressed his sincere gratitude to the people and the Government of Japan for their support to several ESCAP activities during 1984. In the field of statistics, the Seminar was the second meeting during the year generously financed and hosted by the Government of Japan. That was certainly indicative of the evident importance that the Japanese authorities attached to statistical development in the region for sound planning and policy-making.

9. The Executive Secretary observed that price statistics were used for a wide variety of purposes, extending from an assessment of the current performance of the economy to the formulation of longer-range economic policies and analysing economic behaviour. In addition, price statistics were

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required for both temporal and spatial comparisons. They also formed an integral part of the International Comparison Project which had been initiated as far back as 1968 to develop a detailed methodology for intercountry comparisons of GDP and the purchasing power of currencies. The Executive Secretary noted that in the process of implementation through its first four phases, ICP also provided impetus for the development of statistics in other fields and helped in identifying statistical deficiencies, both nationally and internationally. The fifth phase was to commence in 1985, with emphasis on methodologies for developing countries. The regional Seminar was thus very timely, since not many developing countries of the ESCAP region had hitherto participated actively in ICP. The conclusions and recommendations emerging from the Seminar would have an impact on the future statistical activities of ESCAP and would certainly assist in enhancing the statistical systems and capabilities of the countries.

Election

10. The Seminar elected Professor Toshiyuki Mizoguchi (Japan) Chairman and Mrs. Alice Goh Soke Ngoh (Singapore) Vice-Chairman. Mr. Leonard Cook (New Zealand) was elected Rapporteur.

Adoption of the agenda

11. The Seminar adopted the following agenda:

1. Opening of the Seminar.
2. Election of officers.
3. Adoption of the agenda.
4. Introduction to the International Comparison Project (ICP), including Phase IV results and proposed activities in Phase V.
5. Price statistics in the ESCAP region.
6. The expenditure framework of ICP:
   (a) The Phase V expenditure classification;
   (b) Use of national accounts and related data by countries in preparing ICP expenditures.
7. Problems in making price comparison:
   (a) Item selection;
   (b) Assuring comparable outlets, item quality and conditions of sale for goods and services;

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(c) Estimation of national average prices;

(d) Treatment of house rents;

(e) Comparisons of non-priced goods and services and use of input prices.

8. Methodological issues in ICP.

9. Special lectures.

10. Conclusions and future action.

11. Consideration and adoption of the draft report.

12. The documentation prepared for the Seminar is listed in the annex to the present report.

13. The participants, resource persons, observers and visitors from overseas expressed their warm gratitude to the Government of Japan for providing excellent host facilities and full administrative support for the Seminar. The generous hospitality of the central government, the Prefectural Government of Hokkaido and the City of Sapporo was deeply appreciated.

II. INTRODUCTION TO THE INTERNATIONAL COMPARISON PROJECT, INCLUDING PHASE IV RESULTS AND PROPOSED ACTIVITIES IN PHASE V

14. The Seminar considered the papers entitled "Report on phase IV of the International Comparison Project (ICP)" (STAT/SICPPS/12), prepared by the United Nations Statistical Office, and "General outline of the International Comparison Project" (STAT/SICPPS/2), prepared by the Statistical Office of the European Communities which reported on the completion of Phase IV activities, the organization and implementation of Phase V, and the direction for future work.

15. Phase IV of ICP, with 1980 as the reference year, was approaching its final stages of completion through the co-operation of international organizations which included the United Nations Statistical Office, the Statistical Office of the European Communities (SOEC), the Organisation for Economic Co-operation and Development (OECD) and others. The role of the United Nations Statistical Office was that of co-ordinator of Phase IV activities. It also computed purchasing power parities among the six main groups of countries: (i) the African-SOEC group, (ii) the European-SOEC group, (iii) Group II in Europe, (iv) the OECD group, (v) ECLA (Economic Commission for Latin America) group and (vi) the remaining ECWA (Economic Commission for Western Asia) and ESCAP countries. Phase IV world comparisons were used to

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estimate real product in each group and distribute that product among its members according to the results obtained. Whether Phase V would follow the same procedure as Phase IV towards those intraregional and interregional comparisons could not be predicted at that time, as it would depend on further analysis of the costs and benefits as based on Phase IV experiences. The report on Phase IV was to be published soon in two volumes, the first volume containing results for 1980 at the level of GDP and the main aggregates, and volume II extending the presentation of volume I, including descriptions of the work for each group of countries, the methods employed at the detailed level, the expenditure classification and the aggregation procedures.

16. The Seminar was informed that an interorganizational group on ICP had met three times in recent months to discuss Phases IV and V. An interorganizational framework for ICP was developed to overcome the limited resources available for ICP work in the United Nations Statistical Office and to allow for the increasing role that the regional commissions, SOEC and, more recently, OECD were assuming. In addition to its co-ordinating role, the United Nations Statistical Office would be responsible for the core country comparisons during Phase V. Sixteen countries had been asked to assume the role of core countries for the 1985 comparisons.

17. Initially, the United Nations Statistical Office would be involved in estimating purchasing power parity (PPP) at the level of about 150 detailed headings and categories for the core countries. Those detailed PPPs could then be linked to the regional comparisons using the relation of the PPPs of the core countries to non-core countries in their region. As part of the Phase V exercise, the category and item codes were being harmonized. A collated 1980 specification list had been distributed to core countries in September 1984. An interorganizational meeting had taken place at Bellagio, Italy in September 1984 to adopt procedures for finalizing the items list for core countries and discuss future plans for Phase V. A summary report of the meeting was distributed as an information paper at the Seminar.

18. The Seminar was also informed that during Phase IV, a manual on ICP had been initiated in 1981, an outline of which had been completed and the first three chapters drafted by early 1983. Those chapters had been circulated for comments and though there was strong support for the work on the manual to continue, several other issues had arisen resulting in its discontinuation. One fundamental question of methods involved the item selection, weighting of

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items within categories and estimation of PPP at the basic heading (or category) level. Other special issues concerned the treatment of quality differences and comparison of construction and of services such as government, education and health. Those subjects had been discussed at the Bellagio meeting and they were included in the papers for the Seminar. The Bellagio meeting had also discussed the role that chain-linking could play in the aggregation of results across groups of countries.

19. For the future, there would be further attempts to integrate ICP data requirements into both the national statistical needs and other international requests. In 1983, steps had been taken to integrate the additional marginal data required by ICP with the national accounts questionnaire, and that would be followed up. With respect to price data, attempts at integration would be made in the following three areas: (a) the specifications of items and expenditures which it would be feasible to identify and price, and which might be useful to countries in their national statistical work whether or not they participated in ICP, would be promoted; (b) where ICP work was being carried out without a strong set of national price indexes, attempts would be made to promote improvement in national price indexes while meeting ICP data needs; and (c) prices collected for use in post adjustment could be useful for ICP purposes, and vice versa. Such interchange and dual use of information would be further promoted.

20. Attention was given to the degree of disaggregation of the expenditure classification requested in ICP. On the one hand, it was mentioned that reliable national accounts data were difficult to compute on a very detailed level and that might give rise to distortion in the quantity ratios between countries. On the other hand, it was argued that price ratios of individual product groups would often show high dispersions and therefore equal weighting might also introduce a bias in the results. For that reason, it was stressed that CPI (consumer price index) weights might be used to the extent possible in order to provide a more detailed breakdown of national accounts expenditure figures.

21. One country expressed some reservations on the publication of the ICP results in the regular publications of the United Nations, as the results would then be taken as very reliable. The United Nations Statistical Office informed the Seminar that the ICP results pertaining to individual countries would be published only with the consent of the countries concerned.

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III. PRICE STATISTICS IN THE ESCAP REGION

22. The Seminar heard brief statements from the participants, based on papers submitted by them (STAT/SICPPS/CRP.2-7 and STAT/SICPPS/CRP.10-17) on the current status of price data collection in their respective countries. Almost all countries represented at the Seminar were collecting producer, wholesale, and retail prices, and prices of export and import items, and compiling related indices. Some of the countries were compiling consumer price indices for urban and rural groups respectively.

23. While a majority of countries were revising their base periods at fairly frequent intervals, a few countries still used base periods which were more than 10 years old. The formula used for compiling the indices in most cases was the base-weighted Laspeyres type.

24. In some countries, price collection and compilation of indices were being undertaken by several authorities. In one case, as many as 28 independent agencies were responsible for the range of prices collected.

25. The Seminar noted that there were nine countries or areas - Hong Kong, India, Indonesia, Japan, Pakistan, Philippines, Republic of Korea, Sri Lanka and Thailand - in the ESCAP region, which had participated in Phase IV of ICP, with others having been involved in one or more of the earlier phases. At least three more countries - Bangladesh, New Zealand and the Islamic Republic of Iran - were expected to participate in Phase V.

26. Nearly all ESCAP member countries represented had developed national accounting systems which provided the starting point for the ICP exercise. However, further improvements in GDP estimates needed to be made in many cases and the international agencies should devote greater attention to that. The ICP exercise required the expenditure breakdowns of GDP according to certain detailed categories beyond the national accounts minimum framework, and prices of a number of commodities and services with specifications comparable with those of other countries. Price index systems existed at present, but were geared to national requirements and not to those of ICP.

27. Many countries had the statistical expertise to carry out the additional work of ICP; however, many difficulties were noted. The Seminar recognized that the principal problem for countries of the ESCAP region which were to participate in Phase V of ICP was the lack of resources to undertake the additional work required, budgets for national statistics being very limited. Other significant issues were: (a) a majority of the commodities

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included in ICP, and the existing detailed specifications had little relevance to construction, or the production and sale of goods and services in countries in the ESCAP region; (b) data did not exist for the detailed disaggregations of the national accounts expenditure aggregates required for ICP, and the consequent unreliability of any detailed estimates was a matter for concern; (c) the necessity of undertaking the detailed price-collecting surveys needed for ICP alone was resource-consuming; (d) insufficient resources to prepare and agree on regional specifications in time to price in 1985 for Phase V of ICP; (e) difficulties of co-ordination in some countries between price collection agencies, national accounts bureaux, and the statistics office responsible for ICP work; (f) problems of obtaining annual averages at the national level under conditions of insufficient data; (g) conceptual issues connected with quality changes, disappearance of items from the market, seasonal unavailability, and so on; (h) limited understanding about the purpose or objectives of the exercise and its benefits from information available to countries in the ESCAP region; (i) existing inherent problems of collecting price statistics relating to services, construction, capital equipment, own-account construction, unmarketed products, rental of owner-occupied dwellings and so on, exacerbated by the need to collect prices according to ICP specifications which were not relevant to the goods normally produced or traded in countries in the ESCAP region; and (j) difficulties of collecting data for past periods in certain cases and their extrapolation to the bench-mark year.

28. The Seminar considered those problems briefly. Although no conclusive solutions emerged on many of the issues, the discussions clearly brought out the necessity for further research and studies, the importance of commodity-listing and specifications suitable or relevant to certain countries of the region, and the necessity to organize training courses and prepare simple manuals for the use of statisticians from developing countries.

29. The Seminar noted that integration of ICP price collection work with the country's own regular programmes of price collection was likely to better ensure consistency and economy, and avoidance of duplication. The co-operation of the countries of the region in evolving a suitable regional list was stressed. The United Nations Statistical Office, in collaboration with SOEC and other agencies, would integrate the current commodity listings and specifications and would circulate them to countries for their suggestions early in 1985.

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30. The Seminar noted that with regard to the appearance of new items on the market, the common practice currently adopted by the countries of the region was to ignore temporarily the existence of such items until the next revision of the indices.

31. The problems of constructing a building cost index were discussed. The Seminar noted that some countries compiled the index through the prices of selected building materials while others attempted to obtain data of building costs through a survey of those costs estimated by architects.

32. Participants in the Seminar questioned the practice in certain countries participating in Phase IV of ICP of extrapolating the price quotations relating to earlier years by using index numbers. Thus, in one country the 1975 prices were extrapolated to 1980 in the construction sector for its Phase IV studies; that was not considered very appropriate.

33. The Seminar heard with interest that owing to the heterogeneity of commodity items in certain SITC groups for which the unit value index would present misleading results, several participating countries conducted price surveys for specified items to produce their external trade indexes.

34. The Seminar took note that there were different methods adopted by countries in the compilation of national average prices of commodity items. Despite the problems of quality difference in priced items between regions, national average prices were being produced. Those average prices were computed based on one of the three methods, namely, simple average price computed from available price quotations, prices weighted by the population of the pricing centres, and prices weighted according to the quantity of the commodity consumed in the pricing centres. The last method had to depend on the availability of other data which were difficult or costly to obtain through special surveys.

35. The Seminar noted that for those countries which had to undertake special surveys for ICP, the required additional resources had become a burden, especially where budgetary constraints were severe.

36. The Seminar was informed by several participants of the need for organizing training programmes for personnel engaged in ICP work to better appreciate the objectives and uses of ICP studies, including data collection procedures.

37. The Seminar was advised by SOEC of the long-term benefits of participation in ICP, in the improved base data for national accounting and greater integration of national accounts with price indexes.

IV. THE EXPENDITURE FRAMEWORK OF ICP

A. The Phase V expenditure classification

38. For the consideration of that item, the Seminar had before it the document entitled "The expenditure classification and related data requirements" (STAT/SICPPS/3) prepared by SOEC. The document described the detailed classification scheme which had been proposed for the Phase V world-level comparison within ICP. The full detailed classification was given for reference purposes in the appendix to the paper (STAT/SICPPS/3/Add.1). The main paper discussed the areas of development of the classification proposed in relation to the scheme adopted in Phase IV of the project, and described in some detail the structure of the classification proposed for handling services comparisons and the techniques of such comparisons themselves.

39. Several important points were raised in the paper. The proposal to separate own-account construction from total residential construction was discussed by the Seminar. For some countries the separation would not be straightforward owing to consolidated estimates being produced in the construction of their national accounts. Some other countries, however, considered that that would not pose the same degree of difficulty. Some participants suggested such separation, which was consistent with the experience of the African ICP participants. It was pointed out that in Phase IV, the African countries participating in ICP had specifically requested such development of the ICP classification because of its relevance to their circumstances. With regard to the degree of details requested in the classification, doubt was expressed as to whether it could be achieved by the statistical systems. That resulted from, for example, the determination of final household consumption expenditure as a residual, thus contributing to the difficulty of determining its components. Another issue was the difficulties of comparing general government services through comparisons based upon input quantities (direct or indirect), owing to the variability of productivity internationally.

40. In considering those points, the Seminar made two general points regarding the adoption of the ICP proposals within the ESCAP region. First, it was considered that it would be exceptional for current national accounts practice to produce the details required by the classification directly. Subsidiary data sources would be required to support disaggregation of the major national accounts estimates. Such relevant data sources would include

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household budget survey analyses and agricultural production statistics, for example. Second, the classification proposed should be viewed as a target for the minimum to be adopted for the world comparison. It was likely that a more detailed and expanded scheme might be adopted in some regions (by further disaggregation from the target only, hence retaining the possibility of consistency between regional procedures). It was important for the countries of the region to consider carefully whether or not the requirements of the proposal could be met nationally, taking account of all relevant data sources, since reductions from the extent of the proposed breakdown adopted in any region would also influence the level of detail at which the subsequent world-level comparison could be carried out.

B. Use of national accounts and related data by countries in preparing ICP expenditures

41. Under the item, the Seminar considered the document entitled "The operation of public final consumption expenditure and gross capital formation in ICP" (STAT/SICPPS/6) presented by an expert from Japan. The paper identified the problems in adopting the methodological procedures of ICP in the case of Japan for the years 1967 and 1983.

42. With regard to the public final consumption expenditure, the Seminar was informed of the difficulties in implementing the educationally-based subdivisions for compensation of employees. Expenditures on commodities could be estimated by utilizing the input-output tables. As to capital formation, the total amount of fixed capital formation in Japan was estimated from national account figures used by the commodity-flow method. In a price survey and with the specifications of producers' durables, it was possible to investigate the list price, but it was difficult to investigate the discount price or the export price. Another difficulty was in finding the data corresponding to those specifications. Similar problems existed with the construction investment, especially in respect of residential buildings.

43. Noting that ICP was always attended by difficulties in the comparison of prices and specifications, it was suggested that pricing work should proceed with the co-operation of the related ministries and industry associations. The exercise could be facilitated by using the experiences of other regions on price data and specifications, for example those from SOEC, which could be used in the Asian and Pacific countries. The Seminar endorsed those ideas.

44. The Seminar also considered the document entitled "Some problems on the treatment of government services in the United Nations International Comparison Project (ICP)" (STAT/SICPPS/7) which had been prepared by another expert from Japan. In the document it was observed that the distinction between consumption expenditure of the population and government or public final consumption expenditure was not based on the distinction between private goods and public goods, but should be deemed to be based on the concept of the total consumption of the population. Government services regarded as total consumption of the population (TCP) were included in ICP consumption and those regarded as non-TCP were left in ICP government. In the current treatment of the ICP, the "input" approach was adopted for both TCP and non-TCP components of government services. However, the United Nations manual on national accounts at constant prices had recommended the input approach only for the latter in the context of inter-temporal comparisons, which should be regarded as a closely related area in international comparisons. In accordance with the recommendation, the input approach should be confined to non-TCP components of governments services. As to price and quantity comparisons for government categories from the input side, the document suggested that (a) capital consumption should be treated separately from intermediate consumption, (b) the price ratio between goods purchased by the government sector and the same goods purchased by the private sector should be considered, and (c) treatment of non-commodity sales and commodities produced should be improved.

45. The Seminar noted that owing to the problems of data availability concerning business-consumption components of the ICP, no estimate of business-consumption elements of the TCP had yet been included in ICP. It also noted that there were problems in separating capital consumption from other government expenditures on commodities. The Seminar was also informed that the revision of the System of National Accounts (SNA) which the United Nations Statistical Office intended to carry out would consider improvements towards the mutual consistency between inter-temporal and inter-spatial comparisons. That would most probably be attempted through an expert group meeting.

C. Estimation of per capita GNP in United States dollars

46. The Seminar discussed the use by countries of national accounts and related data in preparing ICP expenditures, based on the paper entitled "Estimation of per capita GNP in US dollars: World Bank practice" (STAT/SICPPS/14) presented by a representative of the World Bank.

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47. The paper recounted some of the problems that the World Bank had found during its recent survey on national accounts data of developing countries. The problems concerned mainly the estimation of private consumption expenditures as a residual item by many countries, and the weakness of constant price estimates of GDP expenditure categories owing to deficiencies of data on prices. Those problems could have adverse implications for the ICP for the countries concerned.

48. The Seminar was informed that the World Bank would consider eventually using purchasing power parities (PPPs) rather than the official exchange rates for conversion of GNP into United States dollars if the results of PPPs became available quickly and for most of the countries, and certain other conditions were met. Since PPP data depended on the availability of detailed national accounts statistics, concerted efforts were required from the producers of both national accounts statistics and price statistics. That was especially important if up-to-date PPP data were to be compiled and made available. Some time-lag in obtaining PPP data was none the less unavoidable. The World Bank was investigating the reduced information method as a way of reducing those lags. In those countries where private consumption expenditure estimates were compiled through the commodity-flow method, the problem associated with the estimation of private consumption expenditure as residuals would not arise.

49. The Seminar was also informed that the immediate priority of ADB was the development of statistical systems in its member countries, especially in the South Pacific, which lacked even basic statistics. Through such emphasis, ADB hoped to assist those countries in developing their national accounts estimates and other aggregates.

V. PROBLEMS IN MAKING PRICE COMPARISONS

A. Item selection and procedures

50. The Seminar considered the document "Product selection and specification procedures" (STAT/SICPPS/4) prepared by SOEC. The construction of a world list of ICP specifications was described in the paper which outlined the difficulties in achieving absolute equivalence of specification between regional variations (necessary to promote world-level comparisons). An appendix to the paper presented a preliminary consolidation and matching of the 1980 specification sets of the United Nations Statistical Office, SOEC-ECE and SOEC-Africa. That appendix indicated the subset of the United Nations Statistical Office specification set priced in Phase IV by the Asian countries. The paper also proposed that countries of the region should, using

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the data in appendix I to the paper, consider the relevance of the items listed to their consumption patterns and submit to the regional co-ordinator a national specification set comprising nationally relevant items from the old world list plus items of importance not included in the previous item sets. Such national submissions (covering investment items also) would form the basis of construction of a regional product list. The choice of the basis for regional comparison, that is, between binary or multilateral procedures, was also reviewed in the paper, which further suggested that it would not be practical to adopt a binary design prior to data collection within the Asian and Pacific region. Finally, the paper discussed particular problems associated with selection of goods for which quality matching was difficult.

51. In the discussions that followed, the Seminar acknowledged that the construction of a regional specification set represented a task of substantial scale, involving both national staff and the effort of the co-ordinating agency.

52. In considering the balance and detail of the specifications, the Seminar was of the opinion that a balance of items to be priced in any country might be achieved between items typical of the country and those of its partners and, especially for core countries, between items representative of the ESCAP region and those relevant to other partner regions. With regard to specification development, the burden might be minimized by adopting a less exacting definition basis reflecting "unit values" rather than item prices. The Seminar felt, however, that deviation from comparisons based upon close quality matching of goods might introduce undesirable and unquantifiable biases. It also suggested that items included in the product baskets of national temporal price index systems would form an invaluable basis for the national selection of product specification proposals.

53. A paper entitled "Data collection procedures" (STAT/SICPPS/13), prepared by SOEC, covered the practical problems of data collection in three main areas. First, it was considered desirable to develop and utilize standard field staff documentation and data reporting formats throughout the region. It was also desirable that liaison be developed at the international level between key national project personnel and regional co-ordination staff. Second, there was a description of potential price survey design techniques, using data on geographical price dispersion within countries. Centralized price averaging was favoured in the paper since that could lead to internationally consistent survey design indicators for future price survey activities. Finally, the practical and logistical options for the structure and management of price and other surveys were explained.

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54. The Seminar observed that to meet the ICP requirements for price data, other than in exceptional cases, subsidiary survey activity in addition to routine study programmes would be required. That supplementary activity would probably be required for a considerable number of items to be priced in the ICP data submission of each member country of ESCAP. The reasons for that additional and potentially extensive activity arose from the need to price item specifications which had no equivalent in the national price statistics systems of countries of the ESCAP region. There was also the need to expand price collections geographically for ICP items where only capital city or restricted area price data were regularly available. Further problems resulted from the variability in the item specifications adopted for different regional price collections undertaken routinely to measure inter-temporal changes in prices at the national level.

B. Estimation of national average prices

55. Under that item, the Seminar considered the paper entitled "National average price and regional price differences in Japan" (STAT/SICPPS/8 and STAT/SICPPS/10) presented by two experts from Japan.

56. The paper discussed certain practical problems concerning the calculation of national average prices in ICP. It provided an analysis of the regional price differences in Japan using the National Survey of Prices of 1977, highlighting the price differences between major cities, towns and villages as well as the dispersion of prices among stores.

57. The Seminar was informed that in many commodities, there were larger price differences among various types of stores within the same city than between towns. It was suggested that that was an important matter and should be given due consideration in countries attempting price surveys for ICP.

C. National average prices

58. The Seminar had before it the document entitled "Consistency of the expenditure and price data" (STAT/SICPPS/5) prepared by SOEC. The document stressed the need for consistency of the valuation basis adopted in the construction of national accounting aggregates reported in the expenditure breakdown with the basis of pricing adopted. Even where some ICP specifications might match those used by national price collections for consumer price indices, supplementary price surveys would be required (a) to collect data for items for which no routine data existed, (b) to permit

national average prices to be computed for items for which data of only limited geographical coverage were available, and (c) to permit unified specifications to be adopted nationally, especially where specification uniformity in all routine pricing regions was not assured. The paper also outlined the strategic options regarding construction of the national annual average prices by each country separately, or centrally by the co-ordinating agency. It further described a schematic averaging scheme based upon geographical stratification.

59. In the discussions that followed, the Seminar noted support from two participating agencies for the reporting by countries of all observed price data, that is, individual item price observations. Those agencies considered that the availability of such a data set for all countries could assist the process of data scrutiny and validation, and, where pricing agents' comments also were transmitted, could aid the assessment of the extent to which items priced matched the target specifications. The Seminar was informed that in the case of the Phase IV African study, such a procedure had resulted in the definition of new item specifications relevant to several participating countries, based upon the detailed information made available on product packaging standards and sizes. However, some other participants did not think that would be possible or desirable to supply the raw data to a centralized agency.

D. Regression method

60. The Seminar considered the document entitled "Use of regression method in international price comparison" (STAT/SICPPS/9), prepared by an expert from Japan. The paper explained the use of the regression method in ICP in adjusting quality difference in the price comparison of "rents" and "automobiles". The method employed regression analysis in which an equation expressed the price of a product as a function of its characteristics. Its advantages as a technique for quality adjustment were both a more objective and systematic choice of characteristics of products to be used in the adjustment, and higher reliability of the national average prices produced from the adjustment. After briefly reviewing the application of the method in Phase II of ICP, an evaluation was made as to how well the advantages were actually achieved. From the viewpoint of sampling errors, it was found that the regression method was not always superior to the ordinary methods as a means of estimating the average prices. From the viewpoint of non-sampling

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errors, while the advantages of the method were nearly fully achieved in the case of "automobiles", in the case of "rents" they were not satisfactory. The reason for that difference was considered to be that the specifications of automobiles were far less diverse than those of housing units because the former were mass-produced goods. In view of those factors, the continued use of the regression method for "automobiles" was suggested but in "rents" some modifications of its application, for example, by making the standard specifications more precise, were suggested.

61. The paper also mentioned some problems in applying the method to rent comparison. For a country which had a relatively large rented housing component, the regression method quite often proved useful. Where the rented housing component was not large, the method was less useful because the sample data for that method were usually not extensive enough and rent was quite often not determined by the physical characteristics alone of the housing units. For traditional types of housing units, relatively broad specifications and the use of simple averages were suggested.

62. Although the importance of that method was recognized, the Seminar pointed out some difficulties in rent comparisons. Rents in some countries might include charges such as water or electricity, or the officially reported rent might not cover all the payments made by the tenant. It was therefore felt necessary to use a more uniform definition of rent among countries before making international comparison. The treatment of characteristics which were not incorporated in the specifications for the regression equations was also discussed. Convenience of location could also be a variable affecting rent. The Seminar was informed that only the characteristics of the housing units themselves were taken into account in matching the qualities.

VI. METHODOLOGICAL ISSUES IN ICP

63. For the consideration of that item, the Seminar had before it the documents "An expository review of the theory and method in ICP" (STAT/SICPPS/11) prepared by an expert from Japan, and "A note on international price comparisons for certain commodity groups" (STAT/SICPPS/1 (Revised)) prepared by staff members of SIAP.

64. The first paper was a methodological review of ICP based on the reports of its first three phases. It explained the Geary-Khamis method and the country-product-dummy method, which were central to multilateral comparison in ICP, and rent comparisons and the extrapolation to non-ICP countries through

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regression techniques. The method of international comparison of total factor productivity, which could be considered as a possible extension of the ICP framework from the expenditure side of GDP to the factor income side, was described.

65. The second paper analysed the relative price levels of certain commodity groups within a country using the Geary-Khamis method. Some agricultural commodity groups in ASEAN countries were selected for illustration. The analyses indicated the possibilities for numerically specifying values of "internal terms of trade" among groups of commodities in that example, among selected agriculture commodities.

66. The Seminar took note of those exercises and suggested further research in the above fields, especially those factors which might determine the value of internal terms of trade. That could be of value in formulating price policies for certain commodities, either to augment productivity or to protect the activities required in producing that group of commodities.

VII. REDUCED INFORMATION METHOD

67. A representative of the World Bank presented a document entitled "International real income comparisons with reduced information - summary results of World Bank research project" (STAT/SICPPS/CRP.8) to the Seminar. The World Bank had conducted a research project on a reduced information method of obtaining the main results of ICP. The aim of the reduced information exercise was to extend ICP-type comparisons to countries which would not be participating in bench-mark studies and to make annual extrapolations. The method sought to produce ICP-type estimates using less than the full set of data required by the ICP bench-mark surveys and was subject to the same comments and criticisms as the ICP methods. It was not meant to replace the bench-mark surveys, but was offered as a means of making ICP-type comparisons in cases where the bench-mark studies were not done.

68. The main burden of research in methodology was to identify the smallest set of items which would produce ICP-type results with a minimum of errors. After experimenting with ICP Phase III data, 126 items grouped into 31 categories were chosen by regression techniques which selected for each category the smallest subset of items that best explained the category PPP (purchasing power parity).

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69. The reduced information method called for collecting prices for the selected items, estimating the respective category PPPs using the regression equations and the selected item prices together with category expenditure weights, and solving the Geary-Khamis system of simultaneous equations.

70. The reduced information results for seven African countries were remarkably close to the bench-mark results, although there were many incomparabilities between Phase III from which the regression sample was drawn, and Phase IV with which the results were compared.

71. A further evaluation of the results would be made after the Phase IV results for the rest of the seven countries became available. A second round of research, with a sample of a dozen or so countries drawn from the ESCAP region and Africa, was a distinct possibility.

VIII. CONCLUSIONS AND FUTURE ACTION

72. The secretariat paper entitled "Possible regional activities in the future" (STAT/SICPPS/CRP.1) was considered by the Seminar. The region had made significant advances with regard to the collection of various types of price statistics and compilation of related price indices, and the Seminar was pleased to note that participation of ESCAP countries in ICP had steadily increased since Phase I. The countries that participated in ICP encountered difficulties originating principally from inadequate resources for the extra work involved and the limited relevance of many ICP specifications of items to be priced from the goods and services existing in the countries of the ESCAP region.

73. Moreover, ESCAP itself hitherto had only a marginal role in ICP, in accordance with its work priorities agreed upon and mandated by the member countries of the region at various intergovernmental meetings. In view of the renewed interest in ICP work evinced by a rising number of countries of the region, ESCAP needed a clearer indication of the role the member countries might wish it to play in the future. The Seminar suggested that ESCAP should henceforth play a more active role in ICP in the region but not at the expense of any of its existing responsibilities and priorities. Efforts should therefore be made to augment appropriately the capacity and resources available to the secretariat. The Seminar noted that participation in ICP would enhance international comparability of statistics among countries of the region.

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74. The Seminar recognized from the experiences of member countries of ESCAP in ICP work so far that in most cases the countries would have to organize themselves to undertake the additional workload of collecting detailed price data for a large number of new commodities according to precise specifications. Although the participating countries could use existing price data for ICP with a view to reducing the workload, most developing countries of the region were in need of substantial assistance to carry out that work in the time available and to the standard required. In order to augment the domestic resources available to the statistical offices of participating countries for ICP purposes, their governmental authorities would need full understanding of the benefits of ICP. The Seminar considered it advisable, therefore, to request the United Nations Statistical Office to mount a publicity campaign explaining the benefits of ICP. Nonetheless, some developing countries would still require financial assistance from external sources although they appeared to possess adequate expertise. Those approaches would help ICP gain real momentum in the ESCAP region. Such publicity could also help in dispelling the notion held by many developing countries of the region that ICP results were more for the benefit of the developed countries.

75. The Seminar also recognized the need for training personnel engaged in ICP work in many developing countries of the region. It considered it appropriate for the Statistical Institute for Asia and the Pacific (SIAP) to include courses on ICP and its related subjects in its advanced course programme which was designed to train trainers, an approach that could have considerable spin-off effects. SIAP facilities might also be utilized to organize to the extent possible specific country courses for a few interested countries. The Government of Japan offered active participation in such a training programme through providing host facilities and the services of experts. The courses would be included in the SIAP programme once its Advisory Council had endorsed them.

76. During 1985, the existing commodity-listing and specifications used for ICP would be made more relevant to the member countries of ESCAP. To achieve that, it was planned that the commodity-listing and specifications would have to be modified appropriately and adapted into a regional list, possibly even subregional lists, where the relevance of specifications were known to vary among the different subregions of ESCAP. Subregional listings might be evolved separately for the South Asian, the ASEAN, the East Asian and the

Pacific members of ESCAP. It was suggested that that task be done through workshops for those subregional groups of countries with the core countries playing an active role, under the aegis of ESCAP, with technical and possibly financial support from developed countries, intergovernmental agencies and international organizations interested in promoting ICP in the region. The Seminar endorsed the idea, though concern was expressed that it might result in some delay in the start of Phase V operations in 1985. It was also considered essential to begin immediately the exchange of information on the list of suggested ICP specifications, as well as those of existing consumer price indexes, among participating countries before the workshops were held in order to facilitate the finalization of the ICP regional specifications and core country lists.

77. The Seminar observed that ICP operations should not be viewed or organized as independent or isolated data collection exercises; instead they should be merged with the national data collection activities of participating countries. ICP activities should be integrated with national accounts compilation work in general. That would lead to better consistency between expenditure data and price data, and economies in the use of resources and avoid duplication of work. Those ideas were endorsed by the Seminar.

78. The Seminar noted that India, Japan, Pakistan and the Philippines were to be the core countries in the ESCAP region for the Phase V operations of ICP. They would be responsible for pricing a larger number of items than in the past for the purpose of linking with the member countries of the region in order to enable linking with the world list and facilitate co-ordination of regional specifications under the guidance of the United Nations Statistical Office and ESCAP. The full participation of the Philippines as a core country in the ESCAP region was conditional on its obtaining external resources. Both India and Pakistan viewed ICP as an international research project, and their participation was on that understanding. Although India did not require external assistance for undertaking ICP it was also not in a position to offer financial support to other countries.

79. The Seminar gratefully noted the offer of the Government of Japan to send expert missions to countries needing assistance so that core country exercises could be implemented on time. The Seminar regarded those expert missions as an invaluable contribution to ensure the success of Phase V of ICP in the ESCAP region.

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80. The Seminar took note of the difficulty some countries might have in providing some of its ICP or other data to other national statistical offices on a bilateral basis. The existence of confidentiality stipulations and national practices of supplying unpublished statistical data only to the United Nations and its agencies dictated that position.

81. The Seminar noted that the following activities would be undertaken for Phase V of ICP:

(a) The United Nations Statistical Office would send to the core countries tentative world lists of price specifications and expenditure classifications as scheduled;

(b) ESCAP would send those lists to other participating countries;

(c) Each participating country should send to ESCAP detailed information on the item specifications which it used for its own CPI and other special surveys along with comments on the country relevance of each item appearing on the world list, keeping in mind the feasibility of data collection;

(d) ESCAP, in collaboration with core countries, should attempt to finalize the specific lists of items and classifications of expenditure categories for regional use by mid-1985;

(e) The specific list of items and the classification of expenditure categories would be used by countries in order to provide the required basic ICP data.

82. The Seminar noted with interest the efforts being made by the World Bank to evolve a reduced information method for obtaining timely and usable results of PPP. It was of the view that such research should continue.

83. The Seminar was assured of the continued technical guidance and the co-ordinating role of the United Nations Statistical Office. The World Bank and ADB had occasionally provided technical assistance for the development of the statistical systems of member countries. The World Bank had also supported ICP up to Phase III as a research project. Thus, so long as the work of ICP could be related to statistical development in a member country, the World Bank and ADB could consider providing technical assistance.

IX. CONSIDERATION AND ADOPTION OF THE REPORT

84. The Seminar adopted its report on 22 October 1984.

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Annex

LIST OF DOCUMENTS

Document No.	Title
STAT/SICPPS/L.1	Provisional agenda
STAT/SICPPS/L.2	Annotated provisional agenda
STAT/SICPPS/1	A note on international price comparisons for certain commodity groups
STAT/SICPPS/2	General outline of the International Comparison Project
STAT/SICPPS/3	The expenditure classification and related data requirements
STAT/SICPPS/3/Add.1	The expenditure classification and related data requirements: Appendix
STAT/SICPPS/4	Product selection and specification procedures
STAT/SICPPS/5	Consistency of the expenditure and price data
STAT/SICPPS/6	The operation of public final consumption expenditure and gross capital formation in ICP
STAT/SICPPS/7	Some problems on the treatment of government services in the United Nations International Comparison Project (ICP)
STAT/SICPPS/8 and 10	National average price and regional price differences in Japan
STAT/SICPPS/9	Use of regression method in international price comparison
STAT/SICPPS/11	An expository review of the theory and method in ICP
STAT/SICPPS/12	Report on Phase IV of the International Comparison Project (ICP)
STAT/SICPPS/13	Data collection procedures
STAT/SICPPS/14	Estimation of per capita GNP in US dollars: World Bank practice

Conference room papers

Document No.	Title
STAT/SICPPS/CRP.1	Possible regional activities in the future
STAT/SICPPS/CRP.2	Philippines (Ester F. Abitona)
STAT/SICPPS/CRP.3	Singapore
STAT/SICPPS/CRP.4	Hong Kong
STAT/SICPPS/CRP.5	Thailand
STAT/SICPPS/CRP.6	Philippines (Generoso G. de Guzman)
STAT/SICPPS/CRP.7	Japan
STAT/SICPPS/CRP.8	International real income comparisons with reduced information - Summary results of World Bank research project
STAT/SICPPS/CRP.9	Report to the Interorganizational Group on the International Comparison Project
STAT/SICPPS/CRP.10	Islamic Republic of Iran
STAT/SICPPS/CRP.11	Republic of Korea
STAT/SICPPS/CRP.12	Indonesia
STAT/SICPPS/CRP.13	Pakistan
STAT/SICPPS/CRP.14	Sri Lanka
STAT/SICPPS/CRP.15	India
STAT/SICPPS/CRP.16	Malaysia
STAT/SICPPS/CRP.17	Bangladesh

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